

IN THE CLAIMS

1-38. (Canceled)

39. (Currently amended) A method comprising:
providing a sheet material having a wet pulp state; and
applying to said sheet material while said sheet material is in said wet pulp state a pattern
of PEDT/PSS.

40. (Canceled).

41. (Previously amended) The method of claim 39, wherein said sheet material
comprises paper and a foil and said applying comprises applying said pattern of PEDT/PSS to
said foil.

42. (Previously amended) The method of claim 41, wherein said pattern of PEDT/PSS
is at least partially applied to said foil as a printed image.

43. (Previously amended) The method of claim 41, further comprising embedding
said foil in said paper while said paper is in said wet pulp state thereof and wherein said foil
comprises a first support foil provided with a metallization comprising sectional demetallizations
covered by a at least a further layer comprising PEDT/PSS.

44. (Previously amended) The method of claim 43, wherein said pattern of PEDT/PSS
is applied as a bonding agent between at least said first support foil and said metallization and
between said first support foil and said paper in said wet pulp state.

45. (Previously amended) The method of claim 44, wherein a layer of PEDT/PSS is
applied to said first support foil on the surface thereof opposite said metallization.

46. (Previously amended) The method of claim 44, wherein said metallization is applied to one surface of said first support foil and the PEDT/PSS is applied as a layer on said metallization.

47. (Previously amended) The method of claim 43, wherein said metallization is covered by a further support foil and at least one of the first and further support foils is covered by a layer of PEDT/PSS.

48. (Previously amended) The method of claim 43, wherein the elasticity coefficient of the layer of PEDT/PSS is greater than the elasticity coefficient of said metallization.

49-61. (Canceled).

62. (New) The method of claim 39 further comprising embossing said sheet material there thereby change a density of said a pattern of PEDT/PSS resulting from said applying.

63. (New) The method of claim 39 further comprising imprinting said sheet material to thereby change a density of said a pattern of PEDT/PSS resulting from said applying.

64. (New) The method of claim 39 further comprising testing homogeneity of Siad pattern of PEDT/PSS and then controlling said applying based upon results of said testing.

65. (New) A sheet product obtained by the process comprising:
providing a sheet material having a wet pulp state; and
applying to said sheet material while said sheet material is in said wet pulp state a pattern of PEDT/PSS.

66. (New) A method of using a sheet product obtained by the process comprising:
providing a sheet material having a wet pulp state;

applying to said sheet material while said sheet material is in said wet pulp state a pattern of PEDT/PSS; and

said method of using comprising determining whether regions of said product are electrically conductive.

67. (New) The method of claim 66 wherein said determining comprising spacing a set of control channel elements from one another and moving said product adjacent said control channel elements, and further comprising alternatively energizing even and odd members of said set of control channel elements, thereby reducing cross talk in said control channel elements.